

**Notice of Allowability**

Application No.

10/707,645

Applicant(s)

LIOU, MING-SHI

Examiner

Sam Dillon

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/29/06.
2. ☒ The allowed claim(s) is/are 14-17.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. The Examiner acknowledges the applicant's submission of the amendment dated December 29, 2006. Per the amendment, Claims 14, 19 and 28 have been amended and Claim 18 has been cancelled.
2. The instant application having Application No. 10/707,645 has a total of 18 claims pending in the application; there is 3 independent claim and 15 dependent claims, all of which are ready for examination by the examiner.

#### **I. EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
4. Authorization for this examiner's amendment was given in a telephone interview with Winston Hsu on January 19, 2007. The application has been amended as follows:

- a. Claims 19-33 are **cancelled**.

#### **II. REASONS FOR ALLOWANCE**

5. The following is an examiner's statement of reasons for allowance. The primary reasons for allowance of Claims 14-17 in the instant application, but more specifically to Claim 14, is the combination with the inclusion that:

b. The sorting module makes the corresponding address of a section with greater size smaller than the corresponding address of a section with smaller size (*interpreted as requiring an invariant that corresponding addresses are strictly ordered inversely proportional with size*), and building a bit-pattern for each section based on it's corresponding addresses (*interpreted as requiring the bit-pattern be based on all the addresses included in the section*) and comparing the given address with those of each bit-pattern, and in combination with the further structure listed in lines 18-26 regarding the specific composition of the comparing module.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "*Comments on Statement of Reasons for Allowance*".

### **III. RELEVANT ART CITED BY THE EXAMINER**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tzeng ("*Longest prefix Search Using Compressed Trees*") discloses searching network address prefixes by sorting them.

Srinivasan et al. (*US Patent Number 6,237,061*) disclose searching a prefix for a match.

Ramakrishnan (US Patent Number 6,615,311) discloses prioritizing entries according to address prefix length.

## **V. CONCLUSION**

### **a. STATUS OF CLAIMS IN THE APPLICATION**

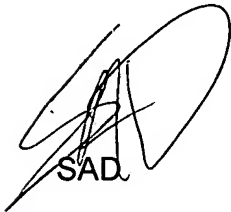
8. The following is a summary of the treatment and status of all claims in the application as recommended by M.P.E.P. 707.07(i):
9. Claims 19-33 are cancelled as per the Examiner's Amendment.
10. Claims 14-17 are allowed.

### **b. DIRECTION OF FUTURE CORRESPONDENCES**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Dillon whose telephone number is 571-272-8010. The examiner can normally be reached on 9:30-6:00.
12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah can be reached on 571-272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

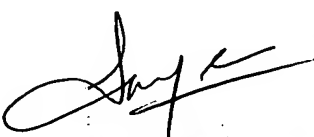
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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SAD

Sam Dillon  
Examiner  
Art Unit 2185



SANJIV SHAH  
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